THE FARMER & GARDENER;

AND LIVE-STOCK BREEDER & MANAGER.

CONDUCTED BY I. IRVINE HITCHCOCK, AND ISSUED EVERY TUESDAY FROM THE AMERICAN FARMER ESTABLISHMENT, AT $5 PER ANNUM, IN ADVANCE

No. 10. **BALTIMORE, JULY 8, 1834.** **Vol. I.**

☞ THIS publication is the *successor* of the late

AMERICAN FARMER,

(which is discontinued,) and is published at the same office, at five dollars per year, payable in advance.

☞ When this is done, 50 cents worth of any kind of seeds on hand will be delivered or sent to the order of the subscriber with his receipt.

American Farmer Establishment.

BALTIMORE: TUESDAY, JULY 8, 1834.

UNDERGROUND TURNIP—The seed of this turnip has been sent us for sale by a judicious and careful agriculturist of Maryland, who describes it as follows. We have no other knowledge of this article.

"The underground turnip, the seed of which is offered for sale, has the property of resisting frost; the bulb will remain nearly invisible, and if sown on the level, or dipping to the south, the crop will be in good preservation, when winter be passed. This turnip is recommended to persons with large stocks, as it has all the good qualities of turnips generally, and besides, has the exclusive property of resisting frost. It is advisable that the experiment be made by farmers generally, if even limited to a bed in the garden. It is best to be sown in drills, on the level; that is, to not raise the drills above the surface—the plants to be about 8 inches apart, the drills 2 feet; some persons, to guard against a winter often changing from thaw to frost, throw with the plough a ridge on the north side of the drill, not very high—it proves as a conductor for the cold to pass off as the sun acts on the turnip, which it does more rapidly than the solid mass of earth of the field in which the plants are growing. In the spring the turnips will be found sound and fresh. *Baltimore, 22d June*, 1834."

BINSBORO, Pitt Co., N. C., 17th June, 1834.

To the Editor of the Farmer & Gardener:—

A great many persons in this section of country seem disposed to turn their attention to the cultivation of silk, and from the experiments that have been made, and the situation of this part of the country, I think it might be cultivated as profitably as at any other place whatever—but so far nothing profitable has been done, owing to our being unprovided with the proper kind of food, the proper places to keep them in safely, and without a proper knowledge of the manner of managing them. To have a few hundred worms scattered about the dwelling house, or some outhouse, fed on the native mulberry, and if they should escape being destroyed, to manufacture a few skeins of sewing silk on a common spinning wheel, has generally been the manner and unprofitable result of raising silk in this country.

Still being under the impression that its cultivation would be productive of profit if conducted properly, that its success or failure depends entirely upon that cause alone, I am induced to make this inquiry, and to collect what information I can on the subject. Observing your advertisement where you offer Seeds, Trees, Books, &c. I concluded that no person I could apply to was better calculated to give me the desired information than yourself. From what I have stated above you can see the information we stand in need of is the proper manner of cultivating the white mulberry tree, —where and on what terms we can procure it— the proper manner of managing the worms—the proper manner of sending the cocoons to market —where is the best market, and what they are generally worth. If it would not give you too much trouble I should receive it as a favour if you would inform me by letter on what terms you could furnish me with the latest and most approved works on the above subjects, (as I expect you have them)—also please forward an Extra of the Farmer, containing a prospectus, &c. It is under the presumption that you feel an interest in the promotion of industry and improvement, that I have asked of you this information, and must also offer this as my only apology for troubling you in this manner. Very respectfully, yours,

JOS. LEE ATKINSON.

We publish the letter of our correspondent on the cultivation of silk, and invite the attention of our readers to the subject. Our columns are open to the discussion, and we shall be glad to be informed of the experience of every one who enters into this branch of business, whether they be successful or otherwise. In the prosecution of every new system of science or practice, truth is always gained at the expense of much error; and he who establishes a negative point is advancing the truth; we therefore earnestly invite the friends of this great branch of the American system of domestic industry and independence, to publish in our columns the results of their efforts. *We* are shut up in the smoke and dust of a city, and can do little of ourselves towards advancing the silk culture, except by disseminating the information sent to us by others, which we will do with much pleasure to the utmost extent of our power.

We will observe for the information of our correspondent, that little can be done at this business, to any profitable effect, until some persons are set aside, for about six weeks in the proper season, to make an entire business of it; and in case he should attempt that, he will find something in the former numbers of this work, and in another part of this week's Farmer, that may give him some little insight into the business, and we hope he will be gratified with the prospect held out to him in favor of prosecuting this line of business. We shall be glad to hear from him again on the subject, and in the meantime we intend to proceed, and give in our columns all the information necessary for prosecuting the business in the most approved manner.

We will comply with the request of our correspondent below with the greatest pleasure. It is a practice we wish to encourage. We think the gentleman has a prospect of having a valuable tract of land. If the superstratum abounds with sand in excess, and the substratum within one foot of the top is clay, he has the principal means at hand for enriching his soil. If it should appear that he has likewise a calcarious marl, we congratulate him on the fortunate constituents of his plantation. These three ingredients, in different quantities, compose soils, suited to the production of all the earth can produce. We shall be glad to render him any aid in the investigation which lies in our power.

MOBILE, 11th June, 1834.

To the Editor of the Farmer & Gardener:

I have a particular description of clay or marl on a tract of level pine land of 1280 acres, bounded on one side by a navigable creek or stream, and distant from this city 8 miles; which if found to be good manure for pine land, or sandy loam, clay about one foot below the surface, would be valuable to me. I will send you by first convenient opportunity a small quantity, that it may be analyzed. Very respectfully, your ob't serv't,

WM. D. STONE.

WASHINGTON, N. C., June 26, 1834.

To the Editor of the Farmer & Gardener:

I will thank you if you will ask of some of your correspondents who have had long experience in this matter, to give to us new beginners and inexperienced young farmers some directions as to the best manner of preserving potatoes, turnips, &c. through the winter, for feeding our cattle. To me, and I have no doubt but to many others, it would be a most valuable piece of information, as so far south as this, few pretend to do such a thing with a hope of success.

I am, &c. H. C. HOYT.

We hope some of our old farmers will oblige our correspondent by giving their method of preserving the roots in question.

THE FARMER.

On the Science of Agriculture.

The great importance of having a correct acquaintance with the nature of the plants which we cultivate, and the laws by which they are governed both in their healthy and growing state, and in their diseased state, called the laws of vegetable physiology, and vegetable pathology, must be impressed upon the mind of every reflecting farmer. Unless he has some idea of the regular functions of the several parts of the vegetable system, he can be but illy qualified to foster and train it in health, or to protect and nurse it in disease. This is a branch of agricultural education which has been little attended to in our own Country; but we hope to lay before our readers from time to time, such subjects as may lead to a better understanding of the *Science* of agriculture. It would be our highest ambition to lead farmers to a train of scientific observation on this noble occupation which dignifies its votaries to the highest order of men; but which, when followed by the mere artizan, destitute of any knowledge of the first principles of his art, degrades him to the lowest order, and dooms him to remain in ignorance and penury.

We proceed to give from Mr. T. Nuttal's Introduction to systematic and physiological Botany, the generally received opinion of the functions of Leaves.

Anatomy of leaves.—The leaf, by most physiologists, is defined to be chiefly a temporary organ, performing for the vegetable life what the lungs execute in the animal; or as acting the purpose of respiratory organs. Their importance to all the rest of the vegetable structure is unquestionable; and, indeed, so essential are their functions, that their office, at least, is never dispensed with; for, in *aphyllous* plants, such as the Dodder, Cassytha, and many of the Cactusses and Euphorbias, the green or succulent bark performs all the foliar functions. But even when most simple, they also possess the higher character of individuality; as we see by the power some thick and succulent leaves have, of acquiring, when planted, a separate existence; and though this possibly is not universal, in consequence of varying circumstances, the deduction regarding the individual nature of the most simple leaf, or foliar lobe, (as elswhere remarked) is apparently unquestionable.

The leaves exhibit most obvious traits of vitality and utility; they are a kind of neutral or agamous beings, perpetually employed for the welfare and support of the whole vegetable community, with which they are associated. Some of them are destined, by a common metamorphosis, to put on the sexual character, and appear in the disguise of flowers and fruit. Occasionally they exhibit traces of irritable mobility, as sensitive plants; many of them relax and fold in the absence of the sun's light; and in the example of *Hedysarum gyrans*, the minute leaves actually possess a *spontaneous motion!* In fact, in their anatomy we shall find each individual possessed of congeries of all the essential cellular and vascular structure, of the vegetable.

In the most cursory examination of the majority of leaves, we perceive that those organs are composed of 3 distinct parts: one part, firm, and apparently ligneous, constitutes the frame-work or skeleton of the leaf; another, succulent and pulpy, fills up the intermediate spaces of this frame-work; and a third, thin and expanded, enclose the other two, or forms the covering for both surfaces of the leaf. On a closer examination we find that the first of these parts is *vascular*, the second *cellular*, and the third a transparent *cuticular pellicle*. Admitting, therefore, that these parts are present in every leaf, although we may not be able to discover all of them distinctly, owing to the imperfection of our instruments; we may conduct our inquiries into the structure of leaves, in reference to their *vascular*, their *cellular*, and their *cuticular* systems.

Perottet Morus Multicaulis, and Manufacture of Silk.

The cultivation of the mulberry and the manufacturing of silk, seems now about to be permanently established in our country.—We see in the public papers, that inquiries are continually made in every direction, on this interesting subject: and we are frequently visited by travellers from the north, from the south, the east and the west, in quest of information on the same subject.

The general impression has long been held, that the cultivation of silk *might* be introduced into our country advantageously; and that our climate is adapted to the production of the mulberry tree, was demonstrated before the revolutionary war. It was then commenced at Annapolis, in Maryland; in Georgia; and in many other places; and the evidence of the congeniality of our climate for the propagation of this tree, is now presented to us by the large mulberry trees of that stock, still growing with the vigor of youth, after the lapse of more than half a century.

The obstacles which have operated chiefly in preventing the introduction of this branch of business into our country, have been the want of a suitable reel for preparing the silk for market, or for want of a convenient market for the cocoons; and an impression has likewise prevailed, much to the injury of this business, that it would require a long time to prepare the trees for use. It has perhaps had no small share in keeping it back, that a general idea has prevailed that there was some secret in the art of preparing the silk from the cocoons, which the uninitiated could not acquire.

Whatever the difficulties may have been, which have operated in retarding this manufacture in our country, they are now removed; public attention is fully awakened, and directed to this subject; we may now rest assured, that so profitable a branch of business will no longer be delayed from being carried into operation.

The reel of which we spoke in a former number of the Farmer, at page 58, invented by Mr. Gay, of Connecticut, is said to be simple in its construction, and the price is so moderate as to bring it within the ability of any person who will be likely to engage in the business, to purchase it. The female or the child, who has gathered the food for the worm, can, when that business i completed, reel the silk and prepare it for the market. The loom invented by the same person, is likewise said to be far superior to any used in Europe, and if any thing is yet lacking in this machinery, we have an assurance in the success of this first attempt, that this young mechanic has resources of mind which will supply whatever is wanting to its completion.

Thus has the invention of this young man created an occupation, which will produce annually, millions of dollars for our country; and what greatly enhances the value of this branch of business is, it forms an occupation for that class of our population, who have suffered most by the introduction of labor saving machinery.

There is another consideration of much weight which is attached to the introduction of the silk manufactory. This business can be performed in families, on their own plantations, and will prevent the gathering large numbers of children and young persons together under one roof; where they will be deprived of parental protection, and subject to the many temptations, to vice and immorality, which are often practised in the large cotton factories.

The invention of this machinery will cause the inventor to be ranked in the list of public benefactors, and history will hand down his name to posterity with that of Galileo, Kepler, Boulton, Watt, and Fulton: and American agriculturists will class him and his countryman Whitney, among the great promoters of human happiness.

If it imposes the obligation upon us of revering the memory, and of doing honor to the persons, who, by their genius, and the industrious application of it, have bestowed upon us an invention which has opened a new avocation for hundreds of thousands, and which will bring comfort and riches to a nation; so are we equally bound to honor the services of a man, whose laudable zeal for benefitting the human race, has upheld him for near three years, in travelling through the most inhospitable climate; in braving

the dangers of pestilence, disease, and savage inhospitality, that he might introduce to civilized society the valuable productions of unknown regions; such a man is M. Perottet, *Agricultural Botanist, and traveller of the marine and colonists of France;* to whom, we are indebted for the introduction of the Morus Multicaulis from the mountains of China.

It has been proposed to honor him by prefixing his name to that of the tree, by the introduction of which, he has enriched our country.

This would be an act of justice, to which we suppose, none could be disposed to object, and hereafter to designate this valuable tree, by the name of the PEROTTET MORUS MULTICAULIS.

This tree was brought by him into France in 1824, among a vast variety of other productions collected in a three years tour in Asia, Cayenne and other regions which are but little known. A correspondent of the N. E. Farmer, says,—

The *Morus Multicaulis* appears to have originated in the elevated regions of China, from whence it has been disseminated throughout the low plains near the sea-shore. Among the number of Mulberries cultivated by the Chinese, for the nourishment of silk worms, the *Morus Multicaulis* appears to be the most esteemed of all, not only for the facility with which it is propagated and grown, but still more for the essentially nutritive qualities which the leaves possess. Chinese inhabitants assured M. Perottet, that to this the disciples of Confucius are indebted for the prosperity and solidity of their empire.

The first discovery of this tree by Mr. Perottet, took place at Manilla, the capital of the Philippine Isles. In descending the river which traverses that city, and on its banks, M. Perottet, discovered the garden of a Chinese inhabitant, where for the first time he saw the *Morus Multicaulis* which was there found growing with a vast variety of other precious plants, which had here been congregated from India, from Ceylon, from Sumatra, and from other sources, and from China.

In August it was brought by Mr. Perottet from Manilla, and first introduced into the Isle of Bourbon; from thence into Cayenne and France. At a later period, it was sent from Cayenne to Martinique, and from France to Guadaloupe; also to Senegal. The numerous plants which are already disseminated in the divers climates of Africa, America and Europe, have all been produced by the two individual plants brought by M. Perottet from Manilla.

Besides what has been already stated, the characteristics which distinguish this Mulberry from others are those which result, 1st. From the remarkable property which the roots possess of throwing up numerous flexible stalks; the facility with which it is propagated from layers, or even from cuttings. 2d. The great length which these stalks acquire in a short space of time. 3d. From the remarkable developement which the thin, soft and tender leaves speedily acquire, and the promptitude with which they are renewed.

This Mulberry should be cultivated in hedge rows, and never suffered to rise higher than seven or eight feet. M. Perottet has assured us, that but a few years are sufficient to raise considerable fields of them in full vigor, sufficient to support an immense quantity of silk worms; and regular plantations can without difficulty, be formed by planting the shrubs at a distance of from six to eight feet asunder, a space sufficient for the extension of the branches; sufficient also for cultivation, and to facilitate the gathering of the leaves. This last operation he further informs us, is so much facilitated by the flexibility of the stalks, and the superior size of the leaf, that a child is sufficient for gathering the food of a large establishment of silk worms.

The *Morus Multicaulis* according to M. Perottet, will be readily acclimated, inasmuch as it originated in a climate analogous to that of France. It appeared neither to suffer from the excessive cold of the northern, or the intense heat of the intertropical regions; as the plant left in the government gardens of Cayenne had acquired during eight months, a truly remarkable developement, being clothed at that time with leaves of extraordinary size. Those also which were cultivated in Senegal, although planted in an arid soil, and situated beneath a dry and scorching sky, exhibited an appearance sufficiently satisfactory; yet in all respects they had acquired less developement than those which were planted in the humid climate of Guiana. A humid, rather than a dry soil seems best to suit this plant.

This Mulberry braves the most rigorous winters of France, not having suffered in the least even during the severe winter of 1829-30. I have taken particular pains to ascertain how they have fared in the extreme north of that country, and have very lately been informed by letter from M. Eyries, a gentleman of Havre, that they have supported well during ten years, the most rigorous winters of the extreme north of France. He has cultivated them to considerable extent, from their first introduction to that country.

And we are lately assured that, by the information received from all quarters, this Mulberry is destined (in France,) to replace the common White Mulberry every where, for the nourishment of silk worms, and that the silk which the worms form from the food afforded by this plant, is of the first quality. And from the experiments of Dr. Deslongchamps of Paris, it appears to have been ascertained, that the cocoons produced by the worms fed exclusively on this plant, are even rather heavier than other cocoons.

In our own country there may yet perhaps be some, who would advance the question whether this most desirable plant will endure the winters of northern climates. At New York, on Long Island, this Mulberry has sustained, unprotected, the rigors of seven winters, as I am informed, and the extraordinary winter of 1831-2 which destroyed so many trees hitherto deemed hardy even to the root.

I have indeed sanguine expectations, that the *Morus Multicaulis* may prove as hardy in our climate, as the Peach tree, which was originally from Persia—or the cherry tree, when once their roots have become established. Its vegetation being rapid and luxuriant, and prolonged to a later period in autumn than that of most other trees, or till the tender and yet vegetating tips of the twigs, are checked by the frost; these extreme ends will generally be lost, as they always are of the common White Mulberry, when young.

In our climate there are many kinds of trees, which need protection during the first winter, though they may never require any afterwards. Such are the young seedling plants of but a single summer's growth, of the *Cherry*, *Plum*, *Pear*, the *Quince*, and the *White Mulberry*, &c. all which require to be carefully, compactly placed in cellars during winter, their roots buried in soil; or occasionally for protection, may be laid in out of doors compactly and in a slanting position, their bodies being in part protected by soil. For all these species are liable to be killed occasionally to the root by the first winter, or to be utterly destroyed by being thrown out by frost, yet in the second winter it is far otherwise; their roots becoming strong and firmly established, the well ripened wood of the second year, and the wood of two years growth, becomes indestructible by any but very extraordinary winters. I have taken the same precautionary measures with the young and tender plants of this Mulberry so valuable—the layers of but a single summer's growth, which are separated in autumn.

I will offer some further evidence of the hardihood of this plant, in addition to what I have stated in a former number, (see N. E. Farmer of the 15th of January, last.) But the experiments which are now in progress elsewhere, as well as here, on a more extensive scale will, as I trust, soon enable us to put this subject more fully at rest.

Very late in the spring of 1833, more than an hundred young trees of the Morus Multicaulis, were set out on the Place of S. V. S. Wilder, Esq. in Bolton, Wocester county. The soil springy, the exposition cold, and sloping to the north; Mr. Joseph Breck, a distinguished botanist of Lancaster, the town adjoining, having especial charge of these plants, has lately very critically examined them. Thus unfavorably situated, and unprotected, they have borne the last winter without injury, except only the very tips of the twigs. Mr. Breck is persuaded that they are even hardier than the common White Mulberry, since some hundred of the latter, which stood very near, were killed half way down to the ground by this same winter.

I have just received a letter of the 30th ult. from John Gordon, Esq. a public spirited gentleman, who has during the last year, made trial of the *Morus Multicaulis* at Hampstead, N. H. These plants grew well during the summer, and have borne well the winter, and are now luxuriantly vegetating to within two or three inches of the tips. Mr. Gordon is now making trial of the White Mulberry, and *Morus Multicaulis* in the city of Portland, in exposed situations; also of the silk worm, confident that they will all succeed well, and that the culture of silk will answer well in that climate.

Although the Mulberry flourishes most luxuriantly in a moist and rich soil, and protected situation, yet as your intelligent correspondent, R. of *Hingham* has before observed, (see N. E. Farmer, page 211 of the 15th of January last,) the leaves in such soils and situations, are more crude,

and not of a quality so nourishing. Besides, the growth of the tree in such situations, being much more rapid, the wood is consequently more tender and more liable in northern climates to be killed by winter; and authors seem to be agreed, that the proper soils for the Mulberry tree, are dry sandy, or stony; and trees on dry, light soils, and situated on the open plains, and on hills the most exposed to cold winds, will generally be found to suffer least of all from the effect of winter. Such appears to have been the case in 1831 '2; the ravages of that destrustive winter seem to have been generally confined to trees growing in particular situations and soils. Even delicate trees and plants the natives of more southern climes, become more hardy, and capable of supporting the northern winters by being planted on the north side of buildings and fences, and in their shade. The exposure to the most intense degree of cold, in such situations, is more than compensated by the protection which is thus afforded to the plants during winter, from the pernicious and far more destructive rays of the sun.

The prediction, in 1830, of the late Dr. Felix Pascalis, that, "after the discovery of *this plant*, a doubt no longer exists, that two crops of silk may be produced in a single season;"—this prediction has since been fulfilled—its truth confirmed by experiment—the soil and cultivation, the habitations for the successive generations of insects being yet the same; all thus converted to a double use, and the whole production doubled. It must be obvious, that the actual profit thus augmented must be manifold.

The honor of the discovery of this plant, its history and uses, belongs to M. Perottet. And much that I have here stated has been before brought to light by the indefatigable researches of Gen. Dearborn. On this, as on other subjects, much is due to his exertion.

We propose to continue this subject, and to give our readers the particulars of the manner of cultivating this estimable plant, and managing the worm as far as has been experienced in our country.

The author of a new treatise on wines gives the following information, which may be particularly useful at New York, where the production of Champagne, as well as the consumption, is quite "considerable."

"Champagne wine, if pure and free from any mixture not belonging to it, forms a star in the centre of the effervescing froth, when poured into a glass when standing on the table. Poor and hungry wine, introduced as champagne, is thus easily discovered, as are also homemade imitations, either from the apple, the pear, or the gooseberry, many of which, in their sparkling quality, approach to the real champagne so closely, that they have deceived many pretended connoisseurs. All other wines may be easily tried by slaking a piece of limestone, and bottling the water when perfectly trasparent for use as occasion may require. The proof consists in filling half a wine glass with this water, and the other half with the suspected wine; should it turn black and muddy it is a sign of impure wine."

THE BREEDER & MANAGER.

[From Dixon's Live Stock Manager.]

The next property which the stock master and farmer should attend to, in the improvement of the breeds of neat cattle and oxen, is

Shape—which is, in a great degree, connected with the shape of the animals; though there is a variety of size, which admirably adapts them to the variations of soil, climate, situation, and food, and to the different views and purposes of their breeders.

The following questions have long been agitated, but never fully decided: Are large or small-sized animals the most profitable? Do they pay the grazing farmer the most money for the food they consume? What is the difference in the growth, or increase of weight, or capability of labor, between the large and small animals, in proportion to the quantity of food which they take for their support? And, lastly, What relation is there in the increase and quickness of feeding of stock of different sizes, and the quantity of food which they consume? The variation of circumstances, and other difficulties, must always prevent these points from being ascertained; and therefore no infallible conclusions or directions can be drawn in respect to the size of cattle, for the purpose of governing the conduct of the breeder, grazier, and fattener of neat cattle. Some imagine that largeness of size is a desirable property, as it affords the means of feeding to a great weight; but as this must be acquired by a much larger and longer-continued consumption of food, it is probable that, except in situations where food is abundant, and consequently, cheap, the smaller sized animals may be the more profitable. The indefatigable Mr. Bakewell considered, that the "smaller the bone, the truer the make of the beast," and quicker in fattening; hence it would appear, that the small sized are more advantageous than the large; and, indeed, the experience and notions of graziers in general favor the same conclusion, that the middling and small breeds are the most profitable, from their fattening with the greatest expedition. It has been remarked, too, but the observation can only apply to the old unimproved sort, that the Lincolnshire and Holderness breeds of neat cattle, "are very large, but their size lies in their bones; they may be fattened with great loss to the grazier;" but can never "return so much for a given quantity of grass as the small-boned, long-horned kind," or improved Leicestershire sort. Some, however, contend, that the difference in the consumption of food, between the large and small sized animals, is not so considerable as is generally supposed: and an able and ingenious inquirer on the subject, who has the support of many others, is of opinion, that large cattle are more profitable, from their not consuming food in the proportion of their weight. Having put the question of the difference in the weight of food consumed by the large and small sized in a given time, to different breeders in different parts of the district where he resides, he found that they agreed, "that the same quantity of food was given to the smallest and largest beast of the same age; that the largest, even when not master of the same fold, often kept itself in the best condition; and that every thing depended on the disposition to fatten, and very little on the size of the animal. He adds, that his experience in his own stock confirms the facts. It must be allowed, that considerable latitude may take place in this respect, and that a certain quantity of large cattle will generally consume more than the same quantity of small ones; but not by any means in proportion to their weight or size.

The following, however, are *certain* advantages in the smaller sized animals,—they are capable of being fattened wholly with grass, without having recourse to the more expensive kinds of food, which must be the case with those of a larger kind, and on pastures of inferior qualities; they are also procured with less difficulty, and are more adapted to the particular situations and circumstances of farmers; and the loss is less when accidents happen to them.

The difference in the quality of the meat, from the difference of size, is thought, by many, to be in favor of the smaller sort, as in those, the fineness of the muscular fibre, or what is commonly termed, the grain of this sort of food, has been deemed the most delicate. On this account, as well as that of convenience, the mutton, beef, and other sorts of meat, of small animals, are constantly preferred; though others, who indulge in the pleasures of the table, think the meat of large animals more delicious and nutritive, particularly beef and mutton; and on this account the markets at certain times of the year make a grand exhibition of the largest carcasses that can be procured.

It is indeed contended by the above experienced inquirer, in opposition to the idea that smaller animals, when fattened, are in common worth more for any given weight of meat than large ones, that if the animal be taken as it stands in the pasture or stall, the contrary is the fact; but when the butcher merely buys what are termed the valuable parts, and receives the offal into the bargain, he will, unquestionably, for obvious reasons, "give more for two cows of twelve stone each a quarter, than for one of twenty-four."—The offal is of much greater value, besides a considerable advantage in the hides. In short, it is concluded, that "the difference between the weight of the animals when living and of the four quarters, when dead, is always in an *inverse* proportion to their size, when their forms and merits are equal; but the bones will *then* be in proportion to the *living weight*, and therefore small animals must be, in this case, *most advantageous to the consumer*." It is also supposed, that the meat of large animals, when preserved for future use, is better than that of the small, from the juices being more fully retained in it, and there being less waste, on account of the external surface being proportionately less.

On the other hand, it is contended, that on account of the greater size of the muscular parts in large animals, the flesh must be more coarse and less valuable than that of the small. It is also asserted, that small sized animals are less prejudicial in poaching the ground than large ones, on account of their feet being wider in proportion to the weight. It is, however, suggested, by the same inquirer, that "the question is, whether the feet and mouths of two small animals will not injure the herbage more than that of one large one."

It is noticed, that small sheep do not poach the ground; yet it is supposed, that "a score of these, weighing a ton in the aggregate, will do more injury to a rich pasture in forty-eight hours than an ox of the same weight in a week.

And in regard to the opinion, that animals of the smaller kinds are in general more hardy than those of the large breeds, it is contended, that if it be meant merely that they are capable of subsisting on shorter herbage, it is right; as a large animal, though it may have exactly the same form as the small one, necessarily requires more time for rest. It feeds and removes itself with greater labour; and notwithstanding it may be as strong again, as having the double weight, it will still, in relation to itself, be a weaker animal. Its head and neck will be as heavy again, and, from their greater length, the weight will recede further from the centre of motion in the shoulder; consequently, increase in power in proportion to the distance; and the same thing holds good in respect to the whole of the limbs. In the stall, or the fold, however, where large oxen are mostly fed, these disadvantages are of no consequence, as the food is received without the trouble of searching for it; and if the necessity of a better pasture does not proceed from the larger animal consuming much more, but from less power in collecting food, the consequence will be, that it must afford the largest weight of flesh with the smallest consumption of food or keep.

In dairy cattle, the advantage may be on the side of small animals, as such cows will give nearly the same quantity of milk each as the large ones, and are capable of subsisting on shorter pasture, without injuring the ground in the same degree; but when the weight and value of the meat form the principal considerations, then the largest animals are to be reckoned the most beneficial to the breeder and the public. Hence it appears, that both the large and small animals have their respective advantages, and that the attention of the breeder should be principally directed by the nature and circumstances of his pastures, as well as the command of other food which he possesses; the middle and smaller breeds of live-stock being preferred on the less rich and inferior kinds, and the large sorts in such situations as are more rich and fertile, and wherever there is a sufficient supply of food.

In an useful work on cattle, it has been observed, that "individual variety of size and shape prevails in all breeds, to the infinite use and convenience of man. Thus, in an established large breed of cattle, there will still be gradations of size, suitable to various soils and purposes. There will be also in every sort individuals which run naturally to length and depth of carcase: others which have a tendency to the contrary form, with much substance, wide loins, and short legs. Many entire sorts possess certain of these as distinctive properties. The improving breeder, in joining the sexes, will take advantage of these varieties of shape, or peculiar properties. He will increase length and depth of carcase, when required, or moderate too great length with its opposite, with rotundity of form, and width of loin, and shortness of leg; ever having especial regard to preserving *substance* in the form of his stock, and to prevent the increasing length and too near approach of the legs. It is very common for our best breeds to degenerate in this way, from neglect; in which case it will be necessary to change the males for others of a still shorter and more substantial form either from the same or a kindred variety, and to pay an increased attention to the selection of females."

It has been stated also, that "every kind of pasture is fitted to raise animals to a particular size. When beasts are brought in of a larger size than the quality of food is calculated to support, these animals, whether cows, sheep, or any other kind, will degenerate apace, and will never prove useful until they come down to the standard, or size adapted to their situation, and suited to their food." And that, "on the other hand, when a smaller breed than ordinary is brought in, they continue to increase in bulk until they come up to the pitch that is suited to their nourishment. But there is this remarkable difference in respect of profit, betwixt these two progressions; that in the retrograde progress, when animals are brought from rich pasture and a comfortable situation to the reverse, they are in every instance worse than the indigenous breed; whereas the animals which are brought from worse to better, continue to improve till they arrive at that perfection which the change in their situation is calculated to produce. These causes may not immediately have their full effect, but in a few years they certainly and evidently will." It is therefore thought that "the improvement of the soil ought to go hand in hand with the introduction of a larger breed of cattle; and a large breed ought, for the same reason, to be introduced in that degree in which the style of agriculture is improved." In support of this, it has been further stated, that "the richest grazing land and the most nourishing artificial food will certainly pay more in feeding large bullocks, sheep, and swine, than it would do in feeding the smaller sizes of the same species," and that "it is equally obvious that the smaller breeds will answer better on the poor pasture than the large."

These are the statements and conclusions that have been commonly held upon the subject; but the improvements that have now been made in stock of different kinds, sufficiently show that much larger animals of such kinds as are really good and valuable in their several particulars may, in all cases, be beneficially sustained and kept, than of such as are of an unimproved inferior quality; consequently, that they should always be of a good proper size, as the inconvenience and injury of keeping small sized stock are often laid to the account of the land, when they ought rather to be attributed to the sort of animals which are kept.

It seems probable also, from many trials, that the difference in the consumption of food by large and small animals is chiefly material as it respects the length of time which they take in fattening, and the proportion of offal they each afford; and upon a calculation, the preference, in point of profit, is certainly to be given to large animals. Upon the whole, it is evident, more attention ought to be paid to size and aptitude for fattening, than has hitherto been bestowed on these subjects.

The heart is a child, it hopes what it wishes.

[From the London Lancet.]

Lectures on Veterinary Medicine,

Delivered in the University of London, by Mr. Youatt.

LECTURE II.

Structure of the Nasal Cavity of Cattle, Sheep, Swine, and Dogs, compared with those of the Horse, and with one another.

Nasal Bones of the Ox.—From the great development of the frontal bones in *cattle* (in order to form a base for the horn sufficiently strong,) all the bones of the face, and the superior ones of the cranium, are considerably diminished in size, and more or less displaced. The nasal bones in the ox are connected, as in the horse, with each other, and with the frontals, the lachrymals, and the superior and anterior maxillaries; but the mode of connexion is different, and the form of the bones is very dissimilar. Comparing the faces of the two animals together, the nasals are scarcely one-third so large in the ox as in the horse. Instead of their expanse above, connected with the frontal superiorly and posteriorly, and with the lachrymal laterally and inferiorly, and reaching as high as, or a little above, the tubercle of lachrymal bone at the inner canthus of the eye, they are pushed down below the orbit by the protrusion of the frontal on either side between them and the lachrymals, and their superior and expanded curve within it receiving a process of the frontal, is changed for an insignificant process contained between the lower curvatures of the frontals: therefore the strangely-intricate mortised connexion between the frontals and the nasals of the horse is not found in cattle. The smaller developement of this portion of the nasal bones does not require it; and they are not so much in the way of danger, for a blow aimed at the head of the ox by the biped or the quadruped would usually fall higher.

The nasal bone of the ox, contrary to that of the horse, enlarges as it proceeds downward, and has its greatest width where it lies between the lachrymal and superior maxillary bones. It then comes in contact with the process of the anterior maxillary, where it begins, in a very slight degree, to become narrow. Leaving this bone, it proceeds forward about half the length of the corresponding portion of the nasal in the horse, very little diminishing in width, and terminates in two apices or points; so that each bone being bifurcated, and the inner apex of each uniting, the nasal bones end in three points springing from an extended surface.

This portion of the nasal bone is short, because the anterior maxillary being in the ox devoid of teeth, is comparatively small; and it is bifurcated and wide, for the greater attachment of muscle and cartilage. The muzzle of the ox is very different from that of the horse. It is broad, thick, and strong, for it has to compress and to hold the grass firmly until it is partly cut and partly torn by the pressure of the incissors of the lower jaw on the pad which occupies the place of the teeth in the upper one.

This bone presents a more regular convexity without than the nasal bone of the horse does, and its concavity is likewise different. We have not the large, almost uniform arch of the internal surface of the nasal bone of the horse, but a distinct

gutter or channel, running along the upper portion of the arch; and the externally lower portion of the internal surface, although presenting a flat appearance, in point of fact, forms part of the larger arch of the whole cavity. This upper and smaller channel corresponds with the upper meatus in the nasal cavity of the horse—the interposed space between the turbinated and nasal bones; and as I shall have to show you that this is the portion of the cavity most connected with the sense of smell, while the others are mere air-passages, or for the discharge of fluids, we can account for the greater size of the meatus in the ox, who needs and has a more acute sense of smell than the horse, on account of his feeding more in the pastures, and not being so perfectly domesticated.

As the nasal bones are not so firmly united to the surrounding ones as in the horse, they are more likely to be displaced or fractured if a violent blow should fall on them; accordingly the interposition of this enlarged upper meatus will remove the turbinated bones beneath more out of the reach of danger.

Nasal Bones of the Sheep.—In the sheep we recognise another form and connexion of the nasal bones—more developed, posteriorly, than those of the ox, but far less so than in the horse; enclosed above like the ox, by a crescentic border of the frontals, instead of a process of the frontal insinuating itself between the nasal and lachrymal bones—pushed down into the face by the development of the frontals, but not so far as in the ox, and forming a more complex denticulated union with the frontals than the ox, because a greater extent of border is opposed and the animal subject to greater danger from the brutality of those who ought to be his protectors, whether biped or quadruped. The nasal bones are not prolonged further below the posterior process of the anterior maxillary than in the ox, because here too that bone does not contain any teeth, and is of comparatively little bulk; and the bones terminate in two sharp points, as in the horse, and uniting together, form, as in that animal, one central and sharp projection. This, and the borders of the anterior maxillary, give attachment to muscles sufficiently powerful to enable the upper lip of the sheep to compress, and assist in breaking off the herbage; or that which would be wanting in power, is supplied by a peculiar quickness and jerkness of motion in the manner in which this animal grazes. The broad muzzle of the ox would be a deformity in the sheep. The sheep, too, in a state of nature, is possessed of considerable activity and speed, and requires thinner and more flexible nostrils, to expand and accommodate themselves to the increased and more laborious respiration. The nasal bones in the sheep are more arched and rounded than in the horse, with, in many breeds, the prominency on the superior part, which, in the horse, has been designated by the name of a "Roman" nose. There is also the same concavity of the nasal bones on their internal surface, forming the same enlarged superior meatus as in the ox, and for the same purpose.

Nasal Bones of the Swine.—In the *swine* the nasal bones are forced farther down into the face than in the horse, ox, or sheep; but they are comparatively larger than in either of them, and present, also, points of difference suited to the situation and destiny of the animal. They are attached to the frontals in a slightly-curved direction across the face, and the suture is fully as complicated as, and considerably stronger than the same suture in the horse. It is both squamous and denticulated. The nasal bones are, as in the sheep, cut off from immediate contact with the lachrymal bones, by the interposition of a projection of the frontals on each side. The suture between them and the superior maxillary is mortised; the anterior maxillary sends up a deep and broad process more than half the length of the nasal, and the suture between is peculiarly strong; the bony nasal opening is not more than one-sixth part so large as in the sheep, and the apices of the bones form one point, sharp, yet rapidly widening, and brought forward to the anterior extremity of the maxillary. The suture between the nasals themselves is so intricate, that before the animal is two years old it is perfectly obliterated at the upper part, and the nasal cavity seems to be covered by one nasal bone only.

The slightest comparison between the face of this animal and that of either of the others will prove that strength was the object here intended to be effected, and strength towards the inferior part of the bone. In fact, the snout of the hog is his *spade;* and if he can get into the kitchen or flower garden, he will use it most effectually, to the great annoyance of the owner. The long and deep furrows which he ploughs in the new-sown field are not viewed with pleasure by the farmer. The hog was not intended to live merely on that which he finds on the surface, but often to dig deep for worms and roots. Have none of you, in your boyish days, followed a hog along the side of an old and somewhat damp hedge, and chased him away when he stopped and began to turn up the earth with his snout? You were sure to be rewarded by the discovery of the sweet-tasted earth-nut—delicious to the school-boy at least. In some parts of Italy, swine are employed in hunting for truffles, which grow some inches deep in the ground, and make a beautiful pickle and sauce, well known to the epicure. One of the swine is driven into a field, and there suffered to pursue his own course. Wherever he stops and begins to root with his nose, truffles are always found.

To make his nasal spade more perfect, an additional bone is added to the nose. It is short and trifacial, and placed immediately before the apices or points of the nasals, and connected with them, and with the borders of the anterior maxillary, by muscles, and also by strong cartilage and ligament. This makes the termination of the snout flexible, and it becomes a better instrument than the unyielding spade of the gardener. He turns up the soft soil with wonderful ease, and searches in every direction after his living and dead food, with a sagacity and dexterity and perseverance which nothing can elude. If you have seen a herd of swine, on the approach of a storm, running wildly about with straw in their mouths, uttering the most lamentable cries, twisting their snouts in every direction, and making the most ridiculous grimaces, you will have proof enough of the flexibility of the prominent portion of the face.

To counteract the propensity and power to dig, the operation of "ringing" is performed by the village farrier and blacksmith;*

"And pigs he rung, and bells he hung,
And horses shod and cured."

The nasal bones of the hog are flatter than any that I have yet shown you. They can thus be so firmly united with the maxillaries, as to almost appear like one bone, and to have the power and strength of one.

The nasal bones of the hog contain within them the separate channel, but considerably shallower, that has been described in the ox and sheep as constituting the enlarged superior meatus. The hog, with all his filthy habits, is possessed of very acute smell, and at times, of very delicate taste too. Of the delicacy even of *his* palate, the peach-orchards of North America afford sufficient proof; for he will not touch the fruit that has lain only a few hours on the ground, but will continue to watch whole hours together for a fresh windfall.

* The ring is passed through what appears to be a prolongation of the septum, between the supplemental or *snout*-bone, and the proper nasal. The animal cannot then get any purchase, to use his snout with effect, or the pain which he suffers by the ring pressing upon the part soon tames him. But the ring is apt to break, or in process of time it wears out, and must be replaced, and this is a painful operation. A better way is, when the pig is young, to cut through the cartilaginous and ligamentous prolongations by which the supplemental bone is united to the proper nasals. The divided edges of the cartilage will never unite again, and the snout will always be powerless.

THE GARDENER.

MARYLAND HORTICULTURAL SOCIETY,

Saturday, July 5, 1834.

Mrs. Thos. L. Emory presented two bunches of very fine Carrots, sown 19th March.

Mrs. Jenkins, of Anne Arundel county, presented one peck of very superior French Peas.

Mrs. Leonard Frailey presented one dozen of superior Apricots, measuring six inches and five-eighths in circumference.

Mrs. Thos. L. Emory presented specimens of the Raspberry-leaved Rose, (rosa rubifolia,) white Snapdragon, (autirhnum alba,) and Oak-leaved Honeysuckle, (lonicera quercifolia.)

Mr. Andrew Clary, gardener to Maj. I. McKim, presented specimens of the Magnolia Grandiflora.

Mr. Samuel Feast presented specimens of four varieties of Cape Jasmine, Japan Honeysuckle, (lonicera Japonica) microphylla and noisette Roses, white Tea Rose, &c.

Mr. John Feast presented specimens of great flowering Larkspur, oxalis quadrifolia; Clintonia scarlet Tea, and Macarteny Roses, &c. &c.

CHESTERTOWN, June 30, 1834.

To the Editor of the Farmer & Gardener:

You must excuse my apparent neglect in not continuing the chapter on Gardening—other demands upon my time have prevented my doing so.—I sent you by the Walcott on Friday a specimen of my early potatoes, with a short note, and trust they arrived safe. The potatoes sent were an average of product in point of size, from a square of about two yards and a half, that is of

five rows two yards and a half in length, the rows from 18 to 20 inches apart, and the pieces planted in the rows about 9 inches apart. From this space I obtained a half bushel of potatoes heaped measure, of the quality forwarded to you. Those potatoes, as I have personally stated to you, were planted on the 18th day of December, 1833, as an experiment. There are still three rows remaining of the "*old English red*," which is one of the finest potatoes we have, but longer in attaining maturity than the "*Mercer*." Those three rows occupy one yard and a half in width, and two and a half yards long—the product I will advise you of when dug. The process of planting was as follows:—The ground having been well prepared by spading, received a coat of well rotted stable manure, on this potatoes were planted in the ordinary manner (cut in pieces), in rows about 18 inches apart, and the pieces in each row about 9 inches distant from each other—the bed was then dressed with chaff (wheat) about two inches; on that of straw about one inch, and the whole covered with two inches of earth obtained by trenching round the bed. They have had no working except once early in the spring, when a few spears of wheat made their appearance, and I then had the surface lightly chopped with a small garden hoe—this was the only occasion on which they were touched, and the bed remained entirely clear of weeds during the season. If you think proper to add this as a continuation of the chapter on gardening, you can do so.

P. S.—The Lima potatoe looks well as regards vine, but I do not wish to trouble it yet.

The potatoes mentioned above were the finest we have seen of this year's growth.

MISCELLANEOUS.

OBSERVATIONS ON VIRGINIA AGRICULTURE.

We are pleased to see the spirit which has lately been awakened in the "Ancient Dominion" on the subject of Agriculture. No state in the union is more happily situated with regard to climate, soil and the natural productions of the earth than that state. Placed in a middle latitude, with an extent of territory equal to many of the kingdoms of the earth; blessed with every variety of soil, with alluvion flats, and mountain acclivities; the mild temperature of her climate would admit of most of the productions of other climates being naturalized to her soil; her extended forests and mineral productions, with her mild and healthful climate, and mountain streams; when the spirit of liberty which has lately been awakened within her limits shall have produced the happy effect of inviting into her territory the proper class of operatives, will make her the favored home of the mechanic arts, which are the handmaid and supporters of agriculture. United they stand, divided they fall. We say to them, in the words of the popular motto, "Go ahead."

At a meeting of a portion of the citizens of Amherst county, convened agreeably to public notice, for the purpose of organizing an Agricultural Society,

Capt. Edmund Penn was called to the chair, and Robert Tinsley appointed Secretary.

The society then proceeded to the election of officers for the ensuing year; whereupon,

Dr. James Powell was duly elected *President*; John Jaquelin Ambler, *Vice President*; Howel L. Brown, *Treasurer*; Arthur B. Davies, *Secretary*.

James Powell, John J. Ambler, John Thompson, Authur B. Davies, Howel L. Brown, Joseph Pettyjohn and Robt. Tinsley are appointed a committee to report to the next meeting a constitution and a system of by-laws for this Society.

Ordered, that Judge Lucas P. Thompson be requested to deliver an Address before this Society, on the 21st day of July next, at 10 o'clock, in furtherance of the objects of this Society, and that the Secretary do furnish him with a copy of this order.

The Society is adjourned, till Monday, the 21st of July next, 10 o'clock. ED. PENN, *Chair*.
ROBERT TINSLEY, *Sec'y*.

On the subject of the proposed communication by steamboats between Calcutta and England, the Calcutta Courier of the 23d January has the following paragraph:

STEAM COMMUNICATION WITH ENGLAND.—Capt. Ross has proceeded to Socotra in the pilot brig Henry Meriton, taking with him Capt. Jump, who, we believe will return in charge of the vessel. Capt. Jump is spoken of as likely to be the future commander of the Forbes on her trips to the Red Sea, for which he has tendered his services. In the meantime arrangements are making to forward coal to the several depots. The Fette Salem is now receiving 500 tons of English coal for Judda, at the freight of 27 rupees per ton,—a very low rate compared with the terms on which the Red Sea depots were provided for the Hugh Lindsay. A suggestion of Capt. Ross is now under consideration of the Committee to anticipate the departure of the Forbes on the first trip, by altering the date to the 20th of April instead of the 1st of May, as lately announced. The motive for the alteration is, that starting on the 20th of April, it is believed the steamer will be able to get down the bay and clear of Ceylon before the earliest period at which storms are to be apprehended.

We understand that the Merchants' Steam committee have given in a plan to government, offering to undertake to keep up a quarterly communication with England by the Suez route, both from Calcutta and Bombay, with four large steamers of 800 tons burthen, each of them furnished with a pair of 100-horse engines—one of the steamers to run from Bombay, two from Calcutta, and one between Alexandria and the British Channel,—provided government will give them five lakhs annually in compensation for carrying the mail and all public despatches.

MECHANICS IN CANTON.—There is no machinery, properly so called in Canton. Much of the manufacturing business, required for the supply of commercial houses in the city, is done at a town situated at a short distance, still the amount of labor performed in Canton is very considerable. There are about 17,000 of persons in Canton employed in silk weaving. The number of persons engaged in manufacturing different kinds of cloth, is about 50,000. They occupy 2,500 shops, averaging, usually, twenty hands in each shop. Some of the Chinese females who devote their time to embroidery, secure a profit of twenty to twenty-five dollars per month. The number of shoemakers is more than 4,000. Those who work in wood, brass, iron, stone and other materials, are numerous, and a distinct community, and are governed by their own laws and regulations in their business. The *barbers* form a separate department. No man can act as tonsor without license. The number of this fraternity in Canton is more than 7,000. The whole number of mechanics in the city is estimated at 250,000.

Whoever has acquired a taste for reading, so fixed that it has settled into habit, has become in the highest sense independent of all other sources of amusement, and sufficient to himself. Fashion and society may set up their ephemeral idol, one day admitting, and another day excluding him, according to its unsettled caprices. They may throw the sunshine of their favor alternately upon the rich, witty, learned, young and fortunate and gay, and he may not be able to claim to be either. But if he have learned really to love to study and to hold converse with the mighty dead, he may set all their decisions at defiance. He can draw his supplies of interest and amusement, and those of the highest order, which life can furnish, from his own perennial and exhaustless fountains. Neither need he envy the professor of the most magnificent apartments, in which to deposite his splendid copies, with their gaudy engravings, gildings and bindings. To a real lover of books, a stall, so that it be amply furnished, is as good as the Vatican, and nature offers him her universal ticket of admission to the grand apartments of her reading room; and, seeing him enter satisfied with his book in his hand, her composed visage will always meet him with a ready welcome.

GOOD MAXIMS.—Keep up your spirits by good thoughts. Enjoy the pleasant company of your best friends, but in all enjoyments be temperate. Learn the art to be preferred before all others, of being happy when alone—which consists in the encouragement of good hopes and rational pursuits—in leading an industrious life, and in converse with the world; be ever careful for the sake of peace, to speak ill of no one, to treat your known enemy with civility, and shut your ears against evil report of all kinds.

CONTENTS OF THIS NUMBER.

Underground Turnip—Jas. L. Atkinson's enquiries on the Cultivation of Silk—Wm. D Stone's enquiries on Marl, and Editorial remarks on the same—H. C. Hoyt, enquiries on the best way to save Potatoes and Turnips through the winter—On the Science of Agriculture—Anatomy of Leaves—Perottet Morus Multicaulus; its origin—On Champaigne Wine—Dixon on Live Stock, on Shape—Lectures on Veterinary Medicine, Nasal Bone of the Ox, Sheep and Swine—Report of the Maryland Horticultural Society—Cultivation of the Potatoe—Amherst, Va. Agricultural Society, with Editorial Observations—Steam Communication between England and Calcutta—Mechanics in Canton—A taste for Reading—Good Maxims—Prices Current—Advertisements.

BALTIMORE PRODUCE MARKET.

☞ *These Prices are carefully corrected every* MONDAY.

	PER.	FROM	TO
BRANDY, Apple,	gallon.	$0 27	$—
Peach,	"	75	—
BEANS, white field,	bushel.	2 00	—
BEEF, on the hoof,	100lbs.	5 75	6 50
CORN, yellow,	bushel.	—	64
White,	"	—	64
COTTON, Virginia,	pound.	10	14
North Carolina,	"	11	12¼
Upland,	"	11	14
FEATHERS,	pound.	—	37
FLAXSEED,	bushel.	1 00	1 25
FLOUR—Best white wheat family,	barrel.	6 50	7 00
Do. do. baker's	"	5 75	6 25
Do. do. Superfine,	"	5 00	5 25
Super Howard street,	"	5 00	5 25
" " wagon price,	"	4 75	— —
City Mills, extra,	"	5 37	5 50
Do.	"	5 12	5 25
Susquehanna,	"	5 25	—
Rye,	"	3 37	—
GRASS SEEDS, red Clover,	bushel.	—	4 50
Timothy (herds of the north)	"	3 50	—
Orchard,	"	3 00	—
Tall meadow Oat,	"	2 50	—
Herds, or red top,	"	1 25	—
HAY, in bulk,	ton.	15 00	16 00
Pressed,	100 lbs	—	90
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
LIME,	bushel.	30	35
MUSTARD SEED, Foreign,	"	4 50	5 00
Domestic,	"	5 00	—
OATS,	"	31	32
OIL, linseed,	gallon.	85	90
Castor	"	1 70	1 80
PEAS, red eye,	bushel.	—	—
Black eye,	"	— —	1 00
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	3 25	—
Ground,	barrel.	1 37	—
PALMA CHRISTA BEAN,	bushel.	2 00	—
RAGS,	pound.	3	4
RYE,	bushel.	71	— —
TOBACCO, crop, common,	100 lbs	3 50	5 00
" brown and red,	"	4 50	6 00
" fine red,	"	6 00	8 00
" wrappery, suitable for segars,	"	6 00	12 00
" yellow and red,	"	8 00	12 00
" yellow,	"	13 00	17 00
" fine yellow,	"	15 00	22 00
Seconds, as in quality,	"	4 00	5 00
" ground leaf,	"	5 00	9 00
Virginia,	"	4 00	—
Rappahannock,	"	3 00	4 00
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 20	—
Red,	"	1 00	1 06
WHISKEY, 1st pf, in bbls.	gallon.	26	—
" in hhds.	"	23½	—
" wagon price,	"	20	—
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 50	—
To Wheeling,	"	1 25	—
		washed.	*unwash*
WOOL, Prime & Saxon Fleeces,	pound.	50 *to* 60	24 *to* 26
Full Merino,	"	40 50	20 24
Three fourths Merino,	"	33 40	22 24
One half do	"	28 33	21 22
Common & one fourth Meri.	"	25 28	18 20
Pulled,	"	28 31	18 20

WOOL.

LYMAN REED & CO. Commission Merchants, No. 6 S. Charles street, Baltimore, Md.—devote particular attention to the sale of WOOL. All consignments made them will receive their particular attention, and liberal advances will be made when required. May 9.

SUBSCRIBERS can have their volumes of the AMERICAN FARMER neatly half bound and lettered at this establishment, at 75 cents a volume. Most of the Nos. can also be had at 10 cents each, to complete files.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	$—	$—
BACON, hams,	pound.	10	—
Shoulders,	"	—	9
Middlings,	"	—	9
BUTTER, printed, in lbs. & half lbs.	"	18	22
Roll,	"	11	16
CIDER,	barrel.	—	—
CALVES, three to six weeks old	each.	3 00	6 00
COWS, new milch,	"	15 00	27 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 45	1 50
CHOP RYE,	"	1 56	1 62
EGGS,	dozen.	9	—
FISH, Shad, trimmed		—	—
" salted,	barrel.	6 37	—
Herrings, salted, No. 1 & 2,	"	3 87	—
Mackerel, No. 1, 2 & 3,	"	3 50	6 25
Cod, salted,	cwtt.	2 87	3 00
LAMBS, alive,	each.	1 25	2 00
Slaughtered,	quart'r	31	50
LARD,	pound.	8	—
POULTRY, Fowls,	dozen.	3 50	—
Chickens,	"	2 25	3 00
Ducks,	"	—	—
POTATOES, Irish,	bushel.	—	—
New,	peck.	50	—
VEAL, fore quarters,	pound.	6	—
Hind do.	"	8	—

ADVERTISEMENTS.

UNDERGROUND TURNIP.

THIS turnip is represented as able to resist frost in an extraordinary degree. (See description of it in the first page of this No.) For sale at the American Farmer Establishment. Price $1 per pound. jy 8

GRAY OR GAZE HOUNDS.

LAST September, I received from the President of the United States, for the beeding farm of this Establishment, a pair of these very beautiful and powerful animals, which had been sent out to him from Holland, by the American Consul there, and in vol. 15, of the American Farmer, page 233, I published the letter accompanying the very acceptable pesent. I have now the satisfaction to offer for sale four (female) puppies—their issue. They will be ready for delivery in all the month of July. Price $20 each. I. I. HITCHCOCK,
American Farmer Establishment.

TURNIP SPINACH & CABBAGE SEED.

A FULL supply of these seeds of several of the best varieties for summer and fall sowing, now on hand and for sale by I. I. HITCHCOCK,
july 1 Amer. Farm. Estab.

IN a season like the present when the grass crops are not so abundant as usual, MILLET must be deemed by the farmer an important and eligible substitute. With this view I have procured a small quantity of the seed, which I offer for sale at $1 50 per bushel.

I have also as usual a full supply of Ruta Baga, white flat and many other kinds of TURNIP SEED, which I believe is of first quality. Also Early French, Early York, Early George, Early Sugarloaf, and sundry other kinds of CABBAGE SEED, which I know to be genuine.

Also, a full and general assortment of GARDEN SEED, including nearly every article in that line.
I. I. HITCHCOCK,

A FINE JACK AND JENNY—FOR SALE.

I HAVE the selling of a fine Jack and Jenny, which measure as follows, viz:

The Jack is of the extraordinary height of fifty-seven and a quarter inches, and was eight years old last spring.

He was imported from Malta, by Mr. C. Thorndike, of Boston, and is unquestionably one of the largest and most valuable animals of the kind in the United States. Price $800.

The Jenny is eight or nine years old, (not more,) is fifty and three-quarter inches in height, and a fine animal. While the above is the *lowest price* for the Jack, I will sell the two together for $1000. Letters in regard to these animals (post paid) will be promptly answered. Either of the animals will be sold separate from the other, if desired. I. I. HITCHCOCK.
May 30. American Farmer Establishment.

NEW HORSE POWER AND THRESHING MACHINE.

THE SUBSCRIBER, as agent of the Proprietors, for the sale of "Lane's Endless Chain Horse Power, and Threshing Machine," within the state of Maryland, offers for sale the above named implements together or separate. These implements have been used several years in New England and were last season introduced into Maryland. The Horse Power consists of a box or frame, 9 feet long, 4½ feet high and about two feet in breadth, the bottom of which is an iron chain, in the form of a band 15 inches wide, which revolves like an apron around two drums, placed near each end of the box. To the shaft of one of these drums, projecting beyond the side of the box, is attached a wheel of 27 inches diameter, around which a leathern band revolves giving motion to the Thresher or any other machine to be moved by it. The motion is communicated to the power by a single horse standing within the box upon the endless chain and by travelling upon it causing it to revolve around the drums, and thus give motion to the machinery. The Horse Power is *portable*, weighing only about half a ton and occupying no more space than 9 feet by two.

The Thresher is of small size, but very perfect in its construction, and sufficiently strong. When used, it stands by the side of the Horse Power, and is attended by three men. By the use of this apparatus three men with one horse can easily thresh in a day of good wheat from 80 to 100 bushels. If two horses be used alternately, each an hour, more than this can be done with ease. It threshes remarkably clean.

The whole apparatus, is strong and durable, and not liable to get out of order. A winnowing machine can be attached by a band and operate at the same time. This machine is confidently recommended to farmers as a thresher, and the Horse Power to Mechanics to drive various kinds of machinery.

PRICES.—For the Horse Power and Thresher together, with the privilege of the patent right for using them on a farm, two hundred and twenty five dollars. For other uses than threshing grain the Horse Power alone with the patent privilege is furnished for $150, to $175, and the Thresher will be sold alone for $50.

Address, I. I. HITCHCOCK.
American Farmer Establishment.

The PATENT RIGHT privilege for making, using, and vending these implements, in any county in Maryland, except Baltimore City and County, will be disposed of by the subscriber on very liberal terms. jy 1

CUBA TOBACCO SEED.

JUST received from Matanzas, a few ounces of the true Cuba Tobacco Seed, from *la Vuelta Abajo*, warranted in prime order—Price $1.00 per ounce.
I. I. HITCHCOCK.

GAMA GRASS SEED.

A SMALL quantity just received, and for sale at 50 cents per ounce, by
I. I. HITCHCOCK.

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, esq. an intelligent farmer, near Edinburgh, Scotland; it was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in the texture; it is rapid in its growth as the White Flat Turnip. In fact, it includes the great desideratum in the selection of a proper variety of the Turnip which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced; it will be found superior in quality to any of the White Field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong. Price 25 cents per ounce. The season for sowing is at hand. I. I. HITCHCOCK,
10 June Amer. Farm. Estab.

BUCKWHEAT.

THIS article is very scarce and high in price in our market this summer. I have however obtained a small quantity for seed, which I offer to my customers at $1 50 per bushel. I. I. HITCHCOCK,
June 17. American Farmer Establishment.